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研究领域 量子开放系统，量子控制，量子信息处理

论文类:

- (1) **S. C. Hou**, X. X. Yi, Quantum Lyapunov control with machine learning, *Quantum Information Processing*, 19 (1), 8, 2020. (SCI)
- (2) W. Cheng, **S. C. Hou** (共同一作), Z. Wang, X. X. Yi, Quantum metrology enhanced by coherence-induced driving in a cavity-QED setup, *Physical Review A*, 100, 053825, 2019. (SCI)
- (3) **S. C. Hou**, X. X. Yi, S. X. Yu, C. H. Oh, Alternative non-Markovianity measure by divisibility of dynamical maps, *Physical Review A*, 83, 062115, 2011. (SCI)
- (4) **S. C. Hou**, S. L. Liang, X. X. Yi, Non-Markovianity and memory effects in quantum open systems, *Physical Review A*, 91, 012109, 2015. (SCI)
- (5) **S. C. Hou**, M. A. Khan, X. X. Yi, D. Dong, I. R. Petersen, Optimal Lyapunov-based quantum control for quantum systems, *Physical Review A*, 86, 022321, 2012. (SCI)
- (6) **S. C. Hou**, X. L. Huang, X. X. Yi, Suppressing decoherence and improving entanglement by quantum-jump-based feedback control in two-level systems, *Physical Review A*, 83, 062115, 2010. (SCI)

代表性成果

- (7) **S. C. Hou**, X. X. Yi, S. X. Yu, C. H. Oh, Singularity of dynamical maps, *Physical Review A*, 86, 012101, 2012. (SCI)
- (8) W. J. Liu, **S. C. Hou** (通讯作者), Q. P. Ma, P. L. Wang, Using silver as a surrogate for plutonium: An experimental study of the explosive silver aerosol source term, *Aerosol Science and Technology*, 50 (8), 857-869, 2016. (SCI)
- (9) **S. C. Hou**, L. C. Wang, X. X. Yi, Realization of quantum gates by Lyapunov control, *Physics Letters A*, 378, 699, 2014. (SCI)
- (10) L.C. Wang, **S. C. Hou**, X. X. Yi, D Dong, I. R. Petersen, Optimal Lyapunov quantum control of two-level systems: Convergence and extended techniques, *Physics Letters A*, 378 (16-17), 1074-1080, 2014. (SCI)
- (11) W. Wang, **S. C. Hou**, X. X. Yi, Adiabatic evolution under quantum control, *Annals of Physics*, 327 (5), 1293-1303, 2012. (SCI)
- (12) Z. C. Shi, **S. C. Hou**, L. C. Wang, X. X. Yi, Preparation of edge states by shaking boundaries, *Annals of Physics*, 373, 286-297, 2016. (SCI)
- (12) B. Cui, **S. C. Hou**, W. Wang, X. X. Yi, Dynamics of a driven optical lattice with distance-selective dissipation. *Journal of Physics B*, 47 (21), 215303, 2014. (SCI)

#### 代表性项目

- (1)国家自然科学基金青年项目，11705026，记忆效应在量子控制问题中的应用，2018/01-2020/12，在研，主持。
- (2)中国博士后科学基金面上项目，2017M611293，记忆效应在量子信息处理中的应用，2017/05-2019/12，结题，主持。

#### 社会兼职

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